

CLAIMS

What is claimed is:

1. A method for optimizing device performance, comprising:
5 determining an operating system type;
saving the operating system type in a data recorder; and
loading a firmware module based on the saved type.
2. The method as described in claim 1, wherein the determining step
10 comprises comparing at least one of the dates, time and number of bytes of the operating system.
3. The method as described in claim 1, further comprising saving the
operating system type in a specific address as set by a virtual-register-like pointer.
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4. The method as described in claim 3, wherein the virtual-register-like
pointer includes a current pointer to state and address one specific operating system.
5. The method as described in claim 4, further comprising incrementing the
20 current pointer to describe changes in the operating system.
6. The method as described in claim 4, wherein the virtual-register-like
pointer includes a second pointer to state which module to load for a specific operating
system.
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7. A program of instructions storable on a medium readable by an
information handling system for causing the information handling system to execute steps
for optimizing device performance, the steps comprising:
determining an operating system type;
30 saving the operating system type in a data recorder;

loading a firmware module based on the saved type.

8. The program of instructions as described in claim 7, wherein the determining step comprises comparing at least one of the dates, time and number of bytes of the operating system.

9. The program of instructions as described in claim 7, further comprising saving the operating system type in a specific address as set by a virtual-register-like pointer.

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10. The program of instructions as described in claim 9, wherein the virtual-register-like pointer includes a current pointer to state and address one specific operating system.

11. The program of instructions as described in claim 7, further comprising incrementing the current pointer to describe changes in the operating system.

12. The program of instructions as described in claim 7, wherein the virtual-register-like pointer includes a second pointer to state which module to load for a specific operating system.

13. An information handling system, comprising:
a processor for executing a program of instructions on the information handling system;

a memory coupled to the processor for storing the program of instructions executable by said processor;

a device coupled to the processor; and

a data recorder coupled to the device;

wherein the program of instructions configures the information handling system to determine an operating system type, save the operating system type to the data recorder, and load a firmware module based on the saved type.

14. The information handling system as described in claim 13, wherein the information handling system determines the operating system by comparing at least one of the dates, time and number of bytes of the operating system.

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15. The information handling system as described in claim 13, further comprising saving the operating system type in a specific address as set by a virtual-register-like pointer.

10 16. The information handling system as described in claim 15, wherein the virtual-register-like pointer includes a current pointer to state and address one specific operating system.

15 17. The information handling system as described in claim 16, further comprising incrementing the current pointer to describe changes in the operating system.

18. The information handling system as described in claim 16, wherein the virtual-register-like pointer includes a second pointer to state which module to load for a specific operating system.

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19. A method for restoring a corrupted data structure with device self stored repair tools, comprising:

determining whether a data structure of an operating system is corrupted; and

restoring the data structure from data recorder data if the data structure is

25 corrupted.

20. The method as described in claim 19, further comprising:

determining if data structure changed;

determining if changes are valid;

30 creating backup if changes are valid; and

restoring original structure from data recorder if changes are not valid.

21. The method as described in claim 19, further comprising:
determining whether a diagnostic boot has been engaged; and
booting basic input/output system to data recorder if diagnostic boot has been engaged.

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22. The method as described in claim 19, wherein the determining step
comprises comparing performance data saved on a data recorder to the data structure to
determine whether the data structure is corrupted.

10 23. A program of instructions storable on a medium readable by an
information handling system for causing the information handling system to execute steps
for restoring a corrupted data structure with device self stored repair tools, the steps
comprising:

15 determining whether a data structure of an operating system is corrupted; and
restoring the data structure from data recorder data if the data structure is
corrupted.

24. The program of instructions as described in claim 23, further comprising:
determining if data structure changed;
20 determining if changes are valid;
creating backup if changes are valid; and
restoring original structure from data recorder if changes are not valid.

25. The program of instructions as described in claim 23, further comprising:
25 determining whether a diagnostic boot has been engaged; and
booting basic input/output system to data recorder if diagnostic boot has been
engaged.

26. The program of instructions as described in claim 23, wherein the
30 determining step comprises comparing performance data saved on a data recorder to the
data structure to determine whether the data structure is corrupted.

27. An information handling system, comprising:
a processor for executing a program of instructions on the information handling system;
a memory coupled to the processor for storing the program of instructions executable by
5 said processor;
a device coupled to the processor; and
a data recorder coupled to the device;
wherein the program of instructions configures the information handling system to
determine whether a data structure of an operating system is corrupted and restore
10 the data structure from data recorder data if the data structure is corrupted.

28. The information handling system as described in claim 27, further
comprising:
determining if data structure changed;
15 determining if changes are valid;
creating backup if changes are valid; and
restoring original structure from the data recorder if changes are not valid.

29. The information handling system as described in claim 27, further
20 comprising:
determining whether a diagnostic boot has been engaged; and
booting basic input/output system to the data recorder if the diagnostic boot is
engaged.

25 30. The information handling system as described in claim 27, wherein the
information handling system determines whether the data structure of the operating
system is corrupted by comparing performance data saved on the data recorder to the
data structure.